U.S. Department of Energy
Office of River Protection
Mr. R. J. Schepens
Manager
P.O. Box 450, MSIN H6-60
Richland, Washington 99352

CCN: 045044

DEC 2 3 2002

Dear Mr. Schepens:

CONTRACT NO. DE-AC27-01RV14136 – PROCUREMENT DOCUMENTS CONSISTENCY WITH PRELIMINARY SAFETY ANALYSIS REPORT COMMITMENTS AND POTENTIAL IMPACT OF UNVERIFIED ASSUMPTIONS ON PROCUREMENT DOCUMENTS

References: 1) CCN 047420, Letter, R. J. Schepens, ORP, to R. F. Naventi, BNI, "Disapproval of Bechtel National, Inc. (BNI) Request to Commence Additional Limited Procurement," 02-OSR-0584, dated November 26, 2002.

2) CCN 040377, Letter, R. F. Naventi, BNI, to R. J. Schepens, ORP, "Additional Request for U.S. Department of Energy Approval to Commence Limited Procurement," dated October 16, 2002.

The purpose of this letter is to provide supplemental information relative to early procurements requested in Reference 2. This information was requested by Reference 1.

Additional review of the quality levels assigned to the requested items has been performed and confirmed that the quality levels included in the request are consistent with or exceed the safety classifications contained in the approved and proposed Preliminary Safety Analysis Reports (PSAR), with the exception of two cesium ion exchange feed coolers (CXP-HX-00001A/B) and two vessels (RDP-VSL-00002C and CXP-VSL-00005). The two ion exchange feed coolers were shown as QL-2 in Reference 2 and should be QL-1. The ion exchange feed coolers are not explicitly listed in the PSAR or the Standards Identification Process Database (SIPD). They were determined to be QL-1 on October 16, 2002, and this determination is being incorporated in the Revision 0 design media. The quality level for the vessels is an error in the reference 2 table only, as the associated material requisition identifies the vessels as QL-1.

The design process requires that the initiation, checking, review, and approval of documents conform with the Authorization Basis (3DP-G04B-00046, Engineering Drawings, 3DP-G04B-0049, Engineering Specifications, and GPP-MGT-007, Document Administration). As part of this development, the quality levels are identified on the Piping and Instrumentation Drawings (P&IDs).

The cesium ion exchange system P&IDs are currently being processed for Issue for Construction. The safety classifications for components are determined by reference to the SIPD database and the PSAR. However, the subject feed coolers are not specifically listed as Safety Design Class (SDC) or Safety Design Significant components in Chapter 4 of the PSAR or in approved SIPD records. They are in-line components located in the piping between the ion exchange feed vessels and the columns, both of which are listed as SDC in the PSAR and SIPD. The PSAR and SIPD also list process piping and in-line components in this service as SDC. Detailed implementation of the general requirements determined that the feed coolers should also be SDC.

Based on the SDC safety classification, the quality level for the feed coolers is QL-1 in accordance with 3DP-G04T-00905, Determination of Quality Levels. The same procedure requires that the quality level be identified in the specifications and on the P&IDs. The identification of quality levels on the P&IDs is done by class break indicators, which ensures that all components are classified.

Early authorization of procurement awards is necessary to start the design interface process with the suppliers so that details/options can be discussed relative to unverified assumptions to support their resolution and closure. Therefore, unverified assumptions associated with requested procurements will be resolved, to the extent necessary to support fabrication, prior to commencement of fabrication by the supplier. Initial design information is provided to the suppliers and continued exchange of information ensures the final design meets specified requirements. If a design requirement that meets the safety analysis assumptions cannot be achieved, the safety analysis will be revised to reflect the available performance criteria for the components or alternate control strategies will be developed.

In the case of the jumper components for the Pretreatment Facility (PTF), the leakage rate of the jumpers below the vessel overflow levels after a seismic event credited in the PSAR is an unverified assumption in the Design Basis Event calculation that supports the PSAR. The ability of the jumpers to meet the functional requirements continues to be evaluated. As changes are identified during the design and procurement process, the material requisition is revised (3DP-G06B-00001, Material Requisitions).

The evaluation of jumper seismic requirements is in process. The project has considered the effect of gasket failure after the seismic event. In accordance with the Integrated Safety Management process (GPP-SANA-002, Hazard Analysis, Development of Hazard Control Strategies, and Identification of Standards) conservative potential leak rates have been calculated, and the effects of such leaks on the ventilation system and on recovery from spills have been evaluated. This evaluation requires a change to the functional requirements in the PSAR, which is being processed according to GPP-SREG-002, Authorization Basis Maintenance.

The procurement award for the connector components is necessary to proceed with fabrication of the first lot of connectors to perform first article verification testing. The first article verification

testing is limited to confirmation of mechanical fit-up and operability and will not be used to confirm the post seismic leak rates described above. However, the connector component procurement affects both Pretreatment (PT) and High Level Waste (HLW) where these connectors will be used in non-seismic (no seismic requirements) systems regardless of resolution of the unverified assumption in the PT PSAR. Final verification of PSAR assumptions, therefore, won't completely negate use of the specified connectors but define limits for their application. Limiting use of the connectors to these unaffected systems, combined with their QL-1 procurement status will allow release of the components for limited use in the PTF consistent with the current PTF PSAR and as determined appropriate after it is updated as described above.

A revised list of requested procurements is attached. The revised list incorporates the changes described above and removes HLW and Low Activity Waste (LAW) procurements as the HLW and LAW PSARs have been approved. The revised list also includes several additional items identified by an "x" in the column titled "new". The cesium ion exchange feed coolers discussed in this letter have been removed from the list as the award date has been reforecast for a later date and authorization for early procurement will not be required.

This matter has been discussed with Mr. Rob Gilbert of the U.S. Department of Energy, Office of Safety Regulation.

If you have any questions, please contact Mr. J. Q. Hicks at (509) 371-3646.

Very truly yours,

R. F. Naventi
Project Director

JD/slr

Attachment: Pre-PSAR ITS Procurement Items

cc:

Barr, R. C. w/a	OSR	H6-60
Barrett, M. K. w/o	ORP	H6-60
Betts, J. P. w/o	WTP	MS14-3C
Curry, L. w/a	WTP	MS4-A2
DOE Correspondence Control w/a	ORP	H6-60
Ensign, K. R. w/o	ORP	H6-60
Erickson, L. w/o	ORP	H6-60
Gilbert, R. w/a	ORP	H6-60
Hamel, W. F. w/o	ORP	H6-60
Hanson, A. J. w/o	ORP	H6-60
Hicks, J. Q. w/a	WTP	MS4-B1
Hinckley, J. P. w/a	WTP	MS9-B
Jackson, D. w/a	WTP	MS9-A
Klein, D. A. w/a	WTP	MS6-P1
Lawrence, R. E. w/a	WTP	MS4-B1
Naventi, R. F. w/o	WTP	MS14-3C
PDC w/a	WTP	MS5-K.1
Sautman M. T. w/a	DNFSB	A5-17
Spezialetti, W. R. w/o	WTP	MS6-P1
Stokes S. w/a	DNFSB	c/o M. T. Sautman A5-17
Taylor, W. J. w/a	ORP	H6-60
Veirup, A. R. w/o	WTP	MS14-3B

PRE PSAR ITS PROCUREMENT ITEMS
PIPING VALVES AND JUMPERS

Facility	Document Number	Description	New	Quality	Quantity
All	24590-QL-MRA-PB00-00002	Stainless Steel Piping Bulks Miscellaneous		QL-1	
All	24590-QL-MRA-PF00-00002	Purex Jumper Connector - Machined Components (QJMD)		QL-1	1000 ea
All	24590-QL-MRA-PF00-00003	Purex Jumper Connector - Cast/Forged Components (QJMD)		QL-1	1000 ea
All	24590-QL-MRA-PF00-00004	Purex Jumper Connector - Gaskets (QJMD)		QL-1	3300 ea
All	24590-QL-MRA-PS02-00008	Pipe, Spool Fabrication (Services) Coaxial Steel Pipe & Fittings		QL-1	350 spls
All	24590-QL-MRA-PV14-00002	Valves - Wafer Check, Stainless Steel		QL-1	250 ea
All	24590-QL-MRA-PV27-00001	Valves - Plug, Stainless and Alloy Steel, Manual		QL-1	500 ea

PRE PSAR ITS PROCUREMENT ITEMS
MECHANICAL SYSTEMS

Facility	Document Number	Description	Equipment Number	New	Quality	Quantity
PTF	24590-QL-MRA-HAHH-00001	Autosampling System	ASX-SMPLR-00014		QL-1	1 ea
PTF	24590-QL-MRA-HAHH-00001	Autosampling System	ASX-SMPLR-00015		QL-1	1 ea
PTF	24590-QL-MRA-HAHH-00001	Autosampling System	ASX-SMPLR-00016		QL-1	1 ea
PTF	24590-QL-MRA-HAHH-00001	Autosampling System	ASX-SMPLR-00017		QL-1	1 ea
PTF	24590-QL-MRA-HAHH-00001	Autosampling System	ASX-SMPLR-00018		QL-1	1 ea
PTF	24590-QL-MRA-HAHH-00001	Autosampling System	ASX-SMPLR-00019		QL-1	1 ea
PTF	24590-QL-MRA-HAHH-00001	Autosampling System	ASX-SMPLR-00020		QL-1	1 ea
PTF	24590-QL-MRA-HAHH-00001	Autosampling System	ASX-SMPLR-00021		QL-1	1 ea
PTF	24590-QL-MRA-HAHH-00001	Autosampling System	ASX-SMPLR-00024		QL-1	1 ea
PTF	24590-QL-MRA-HAHH-00001	Autosampling System	ASX-SMPLR-00025		QL-1	1 ea
LAB	24590-QL-MRA-HAHH-00001	Autosampling System	ASX-SMPLR-00033		QL-1	1 ea
LAB	24590-QL-MRA-HAHH-00001	Autosampling System	ASX-SMPLR-00034		QL-1	1 ea
LAB	24590-QL-MRA-HAHH-00001	Autosampling System	ASX-SMPLR-00035		QL-1	1 ea
LAB	24590-QL-MRA-HAHH-00001	Autosampling System	ASX-SMPLR-00036		QL-1	1 ea
LAB	24590-QL-MRA-HAHH-00001	Autosampling System	ASX-SMPLR-00037		QL-1	1 ea
LAB	24590-QL-MRA-HAHH-00001	Autosampling System	ASX-SMPLR-00038		QL-1	1 ea
LAB	24590-QL-MRA-HAHH-00001	Autosampling System	ASX-SMPLR-00039		QL-1	1 ea
PTF	24590-QL-MRC-MVA0-00002	Cs Reagent Tank	CXP-VSL-00005		QL-1	1 ea
PTF	24590-QL-MRA-MEVV-00001	Primary Condenser	FEP-COND-00001A		QL-1	1 ea
PTF	24590-QL-MRA-MEVV-00001	Primary Condenser	FEP-COND-00001B		QL-1	1 ea
PTF	24590-QL-MRA-MEVV-00001	Inter-Condenser	FEP-COND-00002A		QL-1	1 ea
PTF	24590-QL-MRA-MEVV-00001	Inter-Condenser	FEP-COND-00002B		QL-1	1 ea
PTF	24590-QL-MRA-MEVV-00001	After-Condenser	FEP-COND-00003A		QL-1	1 ea
PTF	24590-QL-MRA-MEVV-00001	After-Condenser	FEP-COND-00003B		QL-1	1 ea
PTF	24590-QL-MRA-MEVV-00001	Vessel Vent Evaporator Demister Vessels	FEP-DMST-00001A		QL-1	1 ea
PTF	24590-QL-MRA-MEVV-00001	Vessel Vent Evaporator Demister Vessels	FEP-DMST-00001B		QL-1	1 ea
PTF	24590-QL-MRA-MEVV-00001	Steam Ejector	FEP-EJCTR-00040		QL-1	1 ea
PTF	24590-QL-MRA-MEVV-00001	Steam Ejector	FEP-EJCTR-00041		QL-1	1 ea
PTF	24590-QL-MRA-MEVV-00001	Steam Ejector	FEP-EJCTR-00042		QL-1	1 ea
PTF	24590-QL-MRA-MEVV-00001	Steam Ejector	FEP-EJCTR-00043		QL-1	1 ea
PTF	24590-QL-MRA-MEVV-00001	Reboiler	FEP-RBLR-00001A		QL-1	1 ea

PTF	24590-QL-MRA-MEVV-00001	Reboiler	FEP-RBLR-00001B		QL-1	1 ea
PTF	24590-QL-MRA-MEVV-00001	Separator Vessel	FEP-SEP-00001A		QL-1	1 ea
PTF	24590-QL-MRA-MEVV-00001	Separator Vessel	FEP-SEP-00001B		QL-1	1 ea
PTF	24590-QL-MRA-MEVV-00001	FEP Primary Condenser Skid A	FEP-SKD-00001A	x	QL-1	1 ea
PTF	24590-QL-MRA-MEVV-00001	FEP Primary Condenser Skid B	FEP-SKD-00001B	x	QL-1	1 ea
PTF	24590-QL-MRA-MEVV-00001	FEP Secondary Condenser Skid A	FEP-SKD-00002A	x	QL-1	1 ea
PTF	24590-QL-MRA-MEVV-00001	FEP Secondary Condenser Skid B	FEP-SKD-00002B	x	QL-1	1 ea
PTF	24590-QL-MRA-MEVV-00001	FEP Condensate Skid	FEP-SKD-00003	x	QL-2	1 ea
PTF	24590-QL-MRA-MPH0-00001	PJV Drain Transfer Pump	PJV-PMP-00001A		QL-2	1 ea
PTF	24590-QL-MRA-MPH0-00001	PJV Drain Transfer Pump	PJV-PMP-00001B		QL-2	1 ea
PTF	24590-QL-MRA-MPH0-00001	Vessel Vent Scrubber Recirculation Pump	PVP-PMP-00001A		QL-1	1 ea
PTF	24590-QL-MRA-MPH0-00001	Vessel Vent Scrubber Recirculation Pump	PVP-PMP-00001B		QL-1	1 ea
PTF	24590-QL-MRA-MPH0-00001	Vessel Vent HEME Drain Transfer Pump	PVP-PMP-00002A		QL-2	1 ea
PTF	24590-QL-MRA-MPH0-00001	Vessel Vent HEME Drain Transfer Pump	PVP-PMP-00002B		QL-2	1 ea
PTF	24590-QL-MRF-MVA0-00003	HEME Drain Collection Vessel	PVP-VSL-00001	x	QL-2	1 ea
PTF	24590-QL-MRF-MVA0-00003	Plant Wash and Disposal Breakpot	PWD-BRKPT-00017		QL-2	1 ea
PTF	24590-QL-MRE-MVA0-00001	Plant Wash Vessel	PWD-VSL-00044		QL-1	1 ea
PTF	24590-QL-MRA-PY33-00001	Gamma Monitoring Bulge	RDP-BULGE-00010	x	QL-2	1 ea
PTF	24590-QL-MRC-MVA0-00002	Spent Resin Collection Vessel	RDP-VSL-00002C		QL-1	1 ea
PTF	24590-QL-MRA-PY33-00001	Valve Bulge	TCP-BULGE-00004	x	QL-1	1 ea
PTF	24590-QL-MRA-PY33-00001	Ejector Bulge	TEP-BULGE-00007	x	QL-2	1 ea
PTF	24590-QL-MRA-MEVV-00001	Primary Condenser	TLP-COND-00001		QL-1	1 ea
PTF	24590-QL-MRA-MEVV-00001	After-Condenser	TLP-COND-00002		QL-1	1 ea
PTF	24590-QL-MRA-MEVV-00001	Inter-Condenser	TLP-COND-00003		QL-1	1 ea
PTF	24590-QL-MRA-MEVV-00001	Vessel Vent Evaporator Demister Vessels	TLP-DMST-00001		QL-1	1 ea
PTF	24590-QL-MRA-MEVV-00001	Steam Ejector	TLP-EJCTR-00064		QL-1	1 ea
PTF	24590-QL-MRA-MEVV-00001	Steam Ejector	TLP-EJCTR-00067		QL-1	1 ea
PTF	24590-QL-MRA-PY33-00001	Valve Bulge for Technetium Ion Exchange	TXP-BULGE-00001	x	QL-2	1 ea
PTF	24590-QL-MRA-PY33-00001	Exchange	TXP-BULGE-00002	x	QL-2	1 ea
PTF	24590-QL-MRA-PY33-00001	LAW Collection Vessel Outlet Valve Bulge	TXP-BULGE-00005	x	QL-2	1 ea
PTF	24590-QL-MRE-MVA0-00001	Ultrafilter Permeate Vessel	UFP-VSL-00062C		QL-1	1 ea

PRE PSAR ITS PROCUREMENT ITEMS
ELECTRICAL

Facility	Document Number	Description	Equipment Number	New	Quality	Quanity
PTF	24590-QL-MRA-EK00-00001	Load Centers 4.16kV/480V - ITS	LVE-LC-10201A	x	QL-1	1 ea
PTF	24590-QL-MRA-EK00-00001	Load Centers 4.16kV/480V - ITS	LVE-LC-10201B	x	QL-1	1 ea
PTF	24590-QL-MRA-EK00-00001	Load Centers 4.16kV/480V - ITS	LVE-LC-10201B	x	QL-1	1 ea